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**Traditional 510(K) Submission****510 (K) Summary**

**This 510(K) Summary is being submitted in  
accordance with requirement of 21 CFR 807.92**

1. Date of Submission: June 20, 2014
2. Submitter / 510(K) Holder

Suzhou Kangli Orthopaedics Instrument Co., Ltd.,  
Sha Zhou East Road,  
Zhangjiagang City,  
Jiangsu Province,  
China 215625

Contact Person: Miss Jin Hua Huang  
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**3. Proposed Device Name**

Trade name: KangLi®  
Common name: Pedicle screw spinal system

Classification Name: Pedicle screw spinal system  
Device Class: Class II  
Classification Panel: Orthopedic Panel  
Product Code: MNI, MNH  
Regulation Number: 21 CFR part 888.3070

**4. Predicate Devices**

510 (k) Number: K122994  
Product Name: General Spinal System  
Submitter: Weigao Orthopaedic Device Co., Ltd.

**5. Device Description**

The spinal system consists of pedicle screws, nuts and rods etc.

It is made of titanium alloy (Ti6Al4V ELI), which meets ASTM F136, Standard Specification for Wrought Titanium-6 Aluminum-4 Vanadium ELI (Extra Low Interstitial) Alloy for Surgical Implant Applications, which are widely used for surgical implants with well-known biocompatibility.

The proposed devices are provided non-sterile. It is required to be sterilized via autoclave method to reach a SAL of  $10^{-6}$  by the hospital prior to surgery. The recommended sterilization method was validated per ISO 17665-1 Sterilization of health care products – Moist heat -- Part 1: Requirements for the development, validation, and routine control of a sterilization process for medical devices.

## 6. Indication for Use/Intended Use

KangLi<sup>®</sup> pedicle screw spinal system is intended for posterior, non-cervical, pedicle fixation for the following indications: severe spondylolisthesis (grade 3 or 4) of the L5-S1 vertebrae; trauma (i.e. fracture or dislocation), spinal stenosis, curvatures (i.e. scoliosis, kyphosis, and/or lordosis); tumor; pseudoarthrosis; and failed previous fusion. The device is to be used in skeletally mature patients, and for stabilization and immobilization of the spine as an adjunct to fusion with bone graft. The levels of fixation are T8 – S1.

## 7. Non-Clinical Testing

Bench tests were conducted to verify that proposed device meet all design specifications as was Substantially Equivalent (SE) to the predicate device. The test results demonstrated that proposed device complies with the following standards:

ASTM F1717-13, Standard Test Methods for Spinal Implant Constructs in a Vertebrectomy Model, including the following items:

- \* Static compression bending test;
- \* Dynamic compression bending test;
- \* Static torsion test.

## 8. Substantially Equivalent Conclusion

The KangLi<sup>®</sup> pedicle screw spinal system has same intended use than the predicate device and similar technological characteristics as the predicate device. The proposed device, the KangLi<sup>®</sup> pedicle screw spinal system, is determined to be Substantially Equivalent (SE) to the predicate device, K122994 General Spinal System.



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration  
10903 New Hampshire Avenue  
Document Control Center - WO66-G609  
Silver Spring, MD 20993-0002

June 26, 2014

Suzhou Kangli Orthopaedics Instrument Company, Limited  
% Ms. Alice Gong  
Shanghai Yurai Consultant Company, Limited  
600 Liu Zhou Road, Building 8, Room 503  
Shanghai 200233 - CHINA

Re: K140053

Trade/Device Name: KangLi® Pedicle Screw Spinal System  
Regulation Number: 21 CFR 888.3070  
Regulation Name: Pedicle screw spinal system  
Regulatory Class: Class II  
Product Code: MNH, MNI  
Dated: May 9, 2014  
Received: May 29, 2014

Dear Ms. Gong:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you, however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

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If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Division of Industry and Consumer Education at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address

<http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm>. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to

<http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm> for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

You may obtain other general information on your responsibilities under the Act from the Division of Industry and Consumer Education at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address

<http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm>.

Sincerely yours,

**Ronald P. Jean -S** for

Mark N. Melkerson  
Director  
Division of Orthopedic Devices  
Office of Device Evaluation  
Center for Devices and  
Radiological Health

Enclosure

**Indications for Use**

510(k) Number (if known)

**K140053**

Device Name

**KangLi® Pedicle Screw Spinal System**

**Indications for Use (Describe)**

KangLi® pedicle screw spinal system is intended for posterior, non-cervical, pedicle fixation for the following indications: severe spondylolisthesis (grade 3 or 4) of the L5-S1 vertebrae; trauma (i.e. fracture or dislocation), spinal stenosis, curvatures (i.e. scoliosis, kyphosis, and/or lordosis); tumor; pseudoarthrosis; and failed previous fusion. The device is to be used in skeletally mature patients, and for stabilization and immobilization of the spine as an adjunct to fusion with bone graft. The levels of fixation are T8 – S1.

Type of Use (Select one or both, as applicable)

☒ Prescription Use (Part 21 CFR 801 Subpart D)

☐ Over-The-Counter Use (21 CFR 801 Subpart C)

**PLEASE DO NOT WRITE BELOW THIS LINE – CONTINUE ON A SEPARATE PAGE IF NEEDED.**

**FOR FDA USE ONLY**

Concurrence of Center for Devices and Radiological Health (CDRH) (Signature)

**Zane W. Wyatt**

**Division of Orthopedic Devices**

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